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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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## FLUORSPAR IN THE FOURTH QUARTER 1997

Preliminary 1997 data indicate that U.S. reported consumption decreased by nearly 7%, as compared to 1996. Most of the decrease was in acid grade. Imports increased by nearly 4%, with most of the increase accounted for by increased metallurgical-grade imports. Both acid-grade and metallurgical-grade import prices decreased significantly in 1997.

In two separate sales, the Defense National Stockpile Center (DNSC) awarded a total of about 118,000 metric tons [130,000 short dry tons (sdt)] of acid-grade fluorspar for an approximate market value of \$8.4 million. The first sale was for 30,900 tons (34,100 sdt) stockpiled at Douglas, AZ. It went to Minerales y Productos (Mexico) for an approximate market value of \$2 million (Defense Logistics Agency, 1998a). The second sale was for 87,100 tons (96,000 sdt) stockpiled at East St. Louis, IL; Eagle Pass, TX; and Marathon, TX. This material went to Hastie Mining & Trucking (Cave-In-Rock, IL) and SESA Fluorspar, Inc. (Eagle Pass, TX) for an approximate market value of \$6.4 million (Defense Logistics Agency, 1998b).

Under the fiscal year 1998 Annual Materials Plan, the DNSC has the authorization to sell an additional 45,000 tons (50,000 sdt) of acid-grade fluorspar prior to Oct. 1, 1998.

As of March 15, 1998, the DNSC had a remaining uncommitted inventory of less than 124,000 tons (136,000 sdt)

of acid grade and about 193,000 tons (213,000 sdt) of metallurgical grade. Under current plans, the DNSC expects to reach its stockpile goal of zero during fiscal year 1999 for acid grade. Final sales of metallurgical grade will probably take place during fiscal year 2002 or fiscal year 2003.

The partnership Hastie/Sogem Minerals has been dissolved. Hastie Mining, which finalized the purchase of the former Ozark-Mahoning mill effective March 1, 1998, continues to wash, screen, and dry acid-grade and metallurgical-grade fluorspar for sale to its customers (J. Watson, Hastie Minerals, oral commun., 1998).

If applicable, please note the revision made in Table 3 to the third quarter value of Chinese acid-grade imports and total acid-grade imports. This revision did not affect the third quarter value per ton in Table 1, Salient Fluorspar Statistics.

### References Cited

Defense Logistics Agency, 1998a, Stockpile accepts acid grade offer: Ft. Belvoir, VA, Defense National Stockpile Center press release, January 14, 1 p.

———1998b, Stockpile accepts acid grade offer: Ft. Belvoir, VA, Defense National Stockpile Center press release, March 5, 1 p.

TABLE 1  
SALIENT FLUORSPAR STATISTICS 1/

(Metric tons unless otherwise specified)

	Fourth quarter 1996	First quarter 1997	Second quarter 1997	Third quarter 1997	Fourth quarter 1997	Total year to date 1997
Imports for consumption	88,200	154,000	137,000	94,900	147,000	533,000
Value per ton, c.i.f. U.S. port, acid grade	\$142	\$141	\$135	\$133	\$127	\$134 2/
Value per ton, c.i.f. U.S. port, metallurgical	\$120	\$96	\$86	\$91	\$90	\$91 2/
Exports	28,300	12,600	14,200	16,900	18,400	62,100
End of quarter stocks: consumer 3/	99,200	143,000	116,000	124,000 r/	137,000	137,000
Fluorspar equivalent of imported hydrofluoric acid 4/	18,100	32,100	48,800	48,300	34,700	164,000
Fluorspar equivalent of imported cryolite	1,570	2,350	2,030	3,390	3,130	10,900
Quarterly reported fluorspar consumption	131,000	128,000	128,000	119,000 r/	114,000	490,000

r/ Revised.

1/ Data are rounded to three significant digits.

2/ Average value for year to date 1997.

3/ Does not include material purchased from the National Defense Stockpile by traders or indirect consumers.

4/ Does not include hydrofluoric acid from foreign trade zone.

TABLE 2  
CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE 1/  
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

End use or product	Third quarter 1997			Fourth quarter 1997			1997 Year to date
	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	
Hydrofluoric acid and aluminum fluoride	108,000	--	108,000	103,000	--	103,000	442,000
Basic oxygen furnaces	--	1,410	1,410	--	1,430	1,430	7,830
Electric furnaces	W	5,410	5,410	W	5,460	5,460	21,700
Other uses or products 2/	3,320	1,250 r/	4,570 r/	3,290	1,460	4,750	18,800
Total	111,000	8,060 r/	119,000 r/	106,000	8,350	114,000	490,000
Stocks, end of quarter	110,000	14,100 r/	124,000 r/	120,000	16,800	137,000	137,000

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes acid grade used in electric furnaces, enamel, glass and fiberglass, steel castings, and welding rod coatings.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY 1/ AND VALUE 2/ 3/

(Metric tons unless otherwise specified)

	Fourth quarter 1996		First quarter 1997		Second quarter 1997		Third quarter 1997		Fourth quarter 1997		Total year to date	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Containing more than 97% calcium fluoride:												
Austria	173	\$39	34	\$30	47	\$32	1	\$2	2	\$6	84	\$70
China 4/	61,800	8,900	103,000	14,600	93,400	12,700	52,500	6,950	99,000	12,600	348,000	46,900
France	--	--	18	9	18	9	140	52	158	60	334	130
Germany	--	--	--	--	--	--	31	14	--	--	31	14
Mexico	4,180	602	8,830	1,260	1,490	198	1,920	277	2,300	325	14,500	2,060
South Africa	20,300	2,710	25,000	3,400	24,900	3,210	32,300	4,220	36,000	4,460	118,000	15,300
United Kingdom	--	--	--	--	--	--	106	43	7	13	113	56
Total	86,400 r/	12,300	137,000	19,300	120,000	16,100	87,000	11,600	137,000	17,500	481,000	64,500
Containing not more than 97% calcium fluoride:												
Canada	157	55	97	35	123	52	10	4	52	20	282	111
Germany	194	20	1	6	--	--	264	27	--	--	265	33
Mexico	1,390	133	16,500	1,540	17,100	1,430	7,640	688	9,580	851	50,800	4,510
Total	1,740	208	16,600	1,580	17,200	1,480	7,910	719	9,640	871	51,300	4,660

r/ Revised.

1/ Imports for consumption include imports of immediate entry, and warehouse withdrawals.

2/ C.i.f. at U.S. ports.

3/ Data are rounded to three significant digits; may not add to totals shown.

4/ Data does not agree with published Bureau of the Census data due to adjustments made by the U.S. Geological Survey.

Source: Bureau of the Census.

TABLE 4  
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID 1/

(Metric tons unless otherwise specified)

	Fourth quarter 1996		First quarter 1997		Second quarter 1997		Third quarter 1997		Fourth quarter 1997		Total year to date 1997	
	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)
Canada	18	\$63	1,870	\$2,310	6,930	\$8,020	8,190	\$9,070	7,560	\$8,340	24,600	\$27,700
France	56	64	73	91	111	125	58	63	39	42	281	321
Germany	72	118	38	99	77	146	80	246	93	126	288	617
Greece	--	--	19	20	--	--	--	--	--	--	19	20
Japan	198	710	154	588	253	894	327	1,080	491	1,710	1,230	4,270
Mexico	11,700	11,000	19,300	18,100	25,100	23,500	23,500	22,000	14,900	13,600	82,800	77,100
United Kingdom	--	--	--	--	19	23	60	62	60	62	139	147
Total	12,100	12,000	21,400	21,200	32,500	32,700	32,200	32,500	23,200	23,900	109,000	110,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ C.i.f. at U.S. ports.

Source: Bureau of the Census.